

Claims

1. A manufacturing method of a liquid crystal display unit manufactured by using a polymeric substrate in which a longitudinal length of the polymeric substrate is longer than its transversal width, and many transparent electrode patterns are arranged in the longitudinal direction;

the manufacturing method being characterized in that the manufacturing method comprises:

a process for forming a vertical orientation film on said polymeric substrate, and a process for solidifying said vertical orientation film;

wherein said polymeric substrate is processed in these processes while said polymeric substrate is continuously moved in the longitudinal direction.

2. A manufacturing method of a liquid crystal display unit according to claim 1, wherein an orientation process for prescribing the falling direction of a liquid crystal molecule by continuously moving said polymeric substrate in the longitudinal direction is subsequently arranged after the process for solidifying said vertical orientation film.

3. A manufacturing method of a liquid crystal display unit according to claim 2, wherein said orientation process is performed by irradiating light in one direction to said vertical orientation film.

4. A manufacturing method of a liquid crystal display unit according to claim 2, wherein said orientation process is performed by rubbing

said vertical orientation film in parallel with the longitudinal direction of said polymeric substrate.

5. A manufacturing method of a liquid crystal display unit
5 manufactured by forming many transparent electrode patterns in a longitudinal direction on a polymeric substrate having a longitudinal length longer than a transversal width;

the manufacturing method being characterized in that the manufacturing method comprises:

10 a patterning process for forming the transparent electrode patterns on said polymeric substrate, and a vertical orientation film forming process for forming a vertical orientation film on said polymeric substrate; wherein a buffer of said polymeric substrate is arranged within said patterning process, or between
15 said patterning process and said vertical orientation film forming process so as to continuously move said polymeric substrate in the longitudinal direction in said vertical orientation film forming process.

6. A manufacturing method of a liquid crystal display unit according
20 to claim 5, wherein an orientation process for prescribing the falling direction of a liquid crystal molecule is arranged after said vertical orientation film forming process, and is performed by continuously moving said polymeric substrate in the longitudinal direction.

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7. A manufacturing method of a liquid crystal display unit according

to claim 5, wherein said vertical orientation film forming process has a first process for forming the vertical orientation film in said polymeric substrate, and a second process for solidifying said vertical orientation film, and said polymeric substrate is processed in said first and second processes while the polymeric substrate is continuously moved in the longitudinal direction.

8. A manufacturing method of a liquid crystal display unit according to claim 6, wherein said orientation process is performed by irradiating light in one direction to said vertical orientation film.

9. A manufacturing method of a liquid crystal display unit according to claim 6, wherein said orientation process is performed by rubbing said vertical orientation film in parallel with the longitudinal direction of the substrate.

10. A manufacturing method of a liquid crystal display unit according to any one of claims 1 to 9, wherein said vertical orientation film contains at least one high polymer among polyimide, cinnamate, chalcone and azobenzene families.